

**PRELIMINARY ECOLOGICAL
APPRAISAL**

**at
The Former VASA Club
238 White Moss Road
Manchester
Greater Manchester
M9 6NZ**

**Client:
AIY Limited**

**Client Address:
Bridgeman House
77 Bridgeman Street
Bolton
BL3 6BY**

**JCA Ref:
17065/FS**

**Date of Report:
20/04/21**



Quality Assurance

Version	Desktop Survey Completed:		Site Surveyed:		Report Completed:		Reviewed:	
	Date	Name	Date	Name	Date	Name	Date	Name
	19/04/21	Francesca Sykes	01/04/21	Francesca Sykes	20/04/21	Francesca Sykes	24/04/21	Adam West

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development 2018* and the *CIEEM's Code of Professional Conduct*.

Risk Assessment Completed	
Bio-security Procedure Completed	
Lone Worker Procedure Completed	



Summary

JCA Limited has been commissioned by AIY Limited to undertake a Preliminary Ecological Appraisal (PEA) of a site located at the former VASA club. The site is located at Ordnance Survey (OS) National Grid Reference SD 86067 03346 with nearby postcode M9 6NZ.

A desk study and field survey were undertaken in order to assess the potential of the site to support protected habitats and species and species of conservation concern. Recommendations for further survey, avoidance, mitigation and enhancement – where appropriate - have been made and are summarised in Table 1 on the following page and are detailed in full in Chapter 6 of this report.

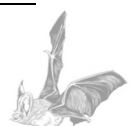
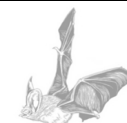


Table 1: summary of ecological receptors at the site and recommended mitigation.

Receptor	Potential Risk to Project if No Action Taken	Cause of Impact Description of Effect	Further Survey Required	Mitigation Required
Designated sites				
Statutorily protected	None	None	None	None
Non-statutorily protected	None	None	None	None
S41 habitat	None	None	None	None
Other habitats	None	None	None	None
Protected species				
Flora (WCA Sch 8, CHSR Sch 5)	None	None	None	None
Invertebrates	None	None	None	None
White-clawed crayfish	None	None	None	None
Fish	None	None	None	None
Great crested newt	None	None	None	None
Reptiles	None	None	None	None
Birds	High	Disturbance of breeding birds through removal or pruning works of trees suitable for breeding birds. Resulting in breach of legislation	A pre-construction site walkover survey prior to vegetation removal. Vegetation must be removed within 24 hours post walkover survey.	Dependant on results of surveys.
Bats	High	Inappropriate lighting in the vicinity of bat roosts can cause disturbance to bat populations and individuals and could constitute an offence under the Wildlife and Countryside Act 1981.	None	Appropriate lighting schemes as per ILP guidance, note 8.
Badgers	None	None	None	None
Otters	None	None	None	None
Water voles	None	None	None	None



Hedgehogs	High	Death or injury to hibernating hedgehogs in the hibernating season through removal of dense scrub.	If scrub is removed within hibernating season (November – March) A pre-construction site check prior to scrub removal is required to check for hibernating hedgehogs.	None
Invasive Species (WCA Sch 9) Injurious Weeds (Weeds Act, 1959)				
None	None	None	None	None
Key: S41 habitat/species – habitats and species listed as priority for conservation importance under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006. WCA Sch – Wildlife and Countryside Act 1981 (as amended) Schedule CHSR Sch – Conservation of Habitats and Species Regulations 2017 Schedule				



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1. Introduction

1.1 Background

1.1.1 In April 202, JCA Limited was instructed by AIY Limited to undertake a Preliminary Ecological Appraisal (PEA) of a site located at The Former VASA Club, 238 White Moss Road hereafter referred to as 'the site'. The purpose of the survey is to establish a baseline of ecological information and assess whether the proposed works, hereafter referred to as 'the scheme', have the potential to adversely affect any protected or notable habitats or species.

1.2 Scheme Description and Location

1.2.1 The site is located at Ordnance Survey (OS) National Grid Reference SD 86067 03346, with nearby postcode M9 6NZ. The site is bordered to the north and west by the A664, residential properties and a small woodland area, to the east and south by; fields, residential properties and woodland.

1.2.2 The scheme is the demolition of the former Vasa club and the construction of residential flats.

1.3 Aims and Objectives

1.3.1 The purpose of the survey is to establish a baseline of ecological information and assess whether the proposed development activities have the potential to adversely affect any protected or notable habitats or species. The following tasks have been undertaken:

- Desktop study – a review of environmental records for the surrounding area to obtain existing information on statutory and non-statutory designated sites of nature conservation interest, and the presence of protected and notable habitats and species within the site and its environs.
- Field surveys – an Extended Phase 1 Habitat survey involving a site visit to record habitat types and dominant vegetation, including any invasive species. During this survey evidence of protected or notable



fauna and habitats or habitat capable of supporting protected or notable fauna was recorded.

- Ecological report – an assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation, and enhancement where appropriate. Locations of any features constituting ecological constraints or of other ecological interest and vegetation recorded on and around the development are included in an accompanying Phase 1 Habitat Map (Appendix 1). This report and the maps are supported by photographs (Appendix 3) and information regarding current legislation (Appendix 7).



2. Methodology

2.1 Desktop Study

2.1.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites and European Protected Species (EPS) licensing applications within a 2km radius of the site. In addition, international sites designated for bats within 30km of the site were searched for. The baseline conditions are based on a review of existing available information including:

- MAGIC (Multi-Agency Geographical Information for the Countryside) website (to identify statutory designated sites and EPS licences).
- Ordnance Survey mapping (to identify potentially notable habitats including ponds).
- Aerial photography (to identify potentially notable habitats).
- Data search for records of protected/notable species on and within 2km of the site within the last ten (10) years (exempting bat roosts, of which all records are included) obtained from GMLRC, the local environmental records centre for greater Manchester, along with information for non-statutory wildlife sites.

2.1.2 The records were checked against species listed as priority species under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and the Greater Manchester Biodiversity Action Plan (LBAP, 2009) to assess national and regional habitat and species status.

2.2 Field Survey

2.2.1 A Phase 1 survey of the site was conducted on 01/04/21. All areas of the site were investigated and areas around the site where access permitted.

2.2.2 The vegetation and habitat types within the site were noted during the survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (Joint Nature Conservation Committee, 2010). Dominant and abundant plant species were recorded for each habitat present.

2.2.3 The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the



Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, the Wildlife & Countryside Act (WCA) 1981 (as amended), including those given a higher level of legal protection under the NERC Act 2006 and Countryside & Rights of Way (CROW) Act 2000, and those listed on the LBAP. The following species were considered:

- Invertebrates (including white-clawed crayfish *Austropotamobius pallipes*).
- Great crested newt *Triturus cristatus* freshwater habitat potential within 500m of the site.
- Reptile habitat within the site.
- Nesting and foraging habitat for birds within the site.
- Bat roost potential and foraging habitat within the site.
- Badger *Meles meles* setts within 30m of the site, where accessible.
- Otters *Lutra lutra* and suitable habitat within 30m of the site, where accessible.
- Water vole *Arvicola amphibius* habitat within 20m of the site, where accessible.
- Other notable species.
- Invasive species.

2.3 Survey Constraints

2.3.1 To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, the survey undertaken focused on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to the National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2018), especially those given protection under UK wildlife legislation.

2.3.2 The optimum time of year for completing the survey is between April and September, as many plant species have a seasonal expression in spring and summer only. The survey was undertaken on 01/04/21.



2.3.3 The details of this report will remain valid for a period of 18 months. If works have not commenced within this period or land use on site changes, it is recommended that a new review of the ecological conditions is undertaken.



3. Desk Study Results

3.1 Statutory Designated Sites

3.1.1 The MAGIC website revealed no internationally designated sites within 2km of the site.

3.1.2 The MAGIC website revealed three nationally designated sites within 2km of the site, detailed in Table 3 below.

Table 2: Nationally designated sites within 2km of the site, identified on MAGIC.

Site Name	Designation	Distance (m) and Direction from Site	Reasons for Designation
Boggart hole clough	LNR	522m south	The site is the largest woodland clough in Manchester and part is ancient woodland.
Alkrington woods	LNR	1197m north east	Habitats include woodland, grassland, marsh, standing water and amenity areas.
Blackley forest	LNR	1480m north west	The forest makes up most of the reserve along with grassland. The River Irk flows through the park and is a main feature. There are a variety of plants and animals to see. Habitats include broadleaved and plantation woodland, grassland, lake, marsh and a river.
Key: LNR – Local Nature Reserve			

3.1.3 The MAGIC website revealed no SACs designated for bats within 30km of the site.



3.2 Non-statutory Designated Sites

3.2.1 Records received from GMLRC revealed seven non-statutory designated sites within 2km of the site, detailed in Table 3 below.

Table 3: non-statutory designated sites within 2km of the site, returned from GMLRC.

Site Name	Distance (m) and Direction from Site	Reasons for Designation
Bailey's Wood	359m south	SBI – no further information provided.
Boggart hole clough	522m south	SBI - The site is the largest woodland clough in Manchester and part is ancient woodland.
Boardman Brook	1.74km north	SBI - no further information provided.
Alkington woods & Rhodes ledges	1.197km north east	SBI - Habitats include woodland, grassland, marsh, standing water and amenity areas.
Blackley Forest	1.480km west	SBI - The forest makes up most of the reserve along with grassland. The River Irk flows through the park and is a main feature. There are a variety of plants and animals to see. Habitats include broadleaved and plantation woodland, grassland, lake, marsh and a river.
Bowker vale reservoirs	2km west	SBI - no further information provided.
Key: SBI– Site of biological importance		

3.3 Section 41 of the NERC Act 2006 Priority Habitat Inventory

3.3.1 The MAGIC website revealed the following habitats within 2km of the site:

- Lowland dry acid grassland - two land parcels with the nearest being 1855m north west of the site.



- Lowland Fens – one land parcel with the nearest being 2000m south east of the site.
- Ancient Woodland - two land parcels with the nearest being 213m south east of the site.
- Deciduous Woodland - 275 land parcels with the nearest being adjacent to the site.
- National Forest Inventory – 66 land parcels with the nearest being adjacent to the site.
- National Habitat Network All Habitats Combined – 55 land parcels with the nearest being adjacent to the site.
- Open Mosaic Habitat – 8 land parcels with the nearest being 902m east of the site.
- Priority Habitat Inventory - No main habitat but additional habitat exists – 12 land parcels with the nearest being 418m from site.

3.4 Protected and Notable Species

3.4.1 European Protected Species (EPS) Licence Applications

- The MAGIC website revealed three EPS licence application(s) within 2km of the site; a licence granted in 01/10/2014 and ending in 31/03/2015 to allow for the unknown impact of an unknown roost type used by a unknown species Licence reference: 2014-1364-EPS-BDX.
- The MAGIC website revealed three EPS licence application(s) within 2km of the site; a licence granted in 01/10/2014 and ending in 31/03/2015 to allow for the impact on a breeding site, the destruction of a breeding site and destruction of a resting place of a common pipistrelle roost. Licence reference: 2014-1562-EPS-BDX.
- The MAGIC website revealed three EPS licence application(s) within 2km of the site; a licence granted in 25/08/2014 and ending in 25/09/2014 to allow for the impact on a breeding site, the destruction of a breeding site and damage of a resting place of a common pipistrelle roost. Licence reference: 2014-2836-EPS-BDX.

3.4.2 Records of Protected and Notable Species



Table 6: summary of relevant records returned by GMLRC of protected and notable species within 2km of the site

Taxonomic Group	Common Name	Scientific Name	On site	Within 500m	Within 1km	Within 2km	Notes
Fish	European Eel	<i>Anguilla anguilla</i>	x	x	x	✓	Records from the Fisheries Manager for the King William IV Angling Society in 2015.
Amphibians	Common Toad	<i>Bufo bufo</i>	x	x	x	✓	Several records in local gardens including tadpoles.
Reptiles	Slow-worm	<i>Anguis fragilis</i>	x	x	x	✓	No further information provided
Birds	Grey Heron	<i>Ardea cinerea</i>	x	x	✓	✓	Numerous individuals identified including nests. All identified within 0.95km of the site.
	Kingfisher	<i>Alcedinidae sp</i>	x	x	x	✓	Numerous individuals identified with the nearest being noted 1.12km from site. Schedule 1 species.
	Bullfinch	<i>Pyrrhula pyrrhula</i>	x	✓	✓	✓	Numerous individuals identified with the nearest being noted 0.24km from site.
	Dunnock	<i>Prunella modularis</i>	x	✓	✓	✓	Numerous individuals identified with the nearest being noted 0.26km from site.
	Herring Gull	<i>Larus argentatus</i>	x	x	✓	✓	Numerous individuals identified with the nearest being noted 0.95km from site.
	House Sparrow	<i>Passer domesticus</i>	x	✓	✓	✓	Five identified with the nearest being noted 0.62km from site.
	Lapwing	<i>Vanellinae sp</i>	x	x	✓	✓	Four identified with the nearest being noted 0.62km from site.
	Lesser Redpoll	<i>Acanthis cabaret</i>	x	x	✓	✓	Four identified with the nearest being noted 0.95km from site.
	Linnet	<i>Linaria cannabina</i>	x	x	✓	✓	One observed nesting in 2010
	Reed Bunting	<i>Emberiza schoeniclus</i>	x	x	✓	✓	Five identified with the nearest being noted 0.95km from site.



	Song Thrush	<i>Turdus philomelos</i>	x	x	✓	✓	Numerous identified, with the nearest being 0.64km from site.
	Starling	<i>Sturnus vulgaris</i>	x	✓	✓	✓	Several identified with the nearest being 0.31km from site.
Bats	Unknown bat species	<i>Chiroptera sp</i>	x	✓	✓	✓	Several records in marshy area of woods. Nearest record 0.52km of site.
	Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	x	x	✓	✓	Numerous records through the years. Nearest record 0.95km of the site.
	Daubenton's Bat	<i>Myotis daubentonii</i>	x	x	✓	✓	Four identified with the nearest being 1.59km of the site.
Bat roosts	Unknown bat species.	<i>Chiroptera sp</i>	x	✓	✓	✓	5 unidentified bat roosts identified. One roost had hundreds of droppings within the interior of the building. The nearest bat roost was identified within 15km of the site.
	Common Pipistrelle .	<i>Pipistrellus pipistrellus</i>	x	x	✓	✓	14 roosts identified with large numbers seen emerging from roosts. Nearest roost 0.85km from site.
	Unknown Pipistrelle species.	<i>Pipistrellus sp</i>	x	x	✓	✓	7 roost identified including mixed sex, maternity and adult bat roost. The nearest roost being 0.95km from site.
	Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	x	x	x	✓	One bat roost identified in 2006.
Badgers	Badgers	<i>Meles meles</i>	x	x	x	✓	One sett has been identified within 2km of the site. Other badger signs have also been identified within 2km of the site.
Otters	European Otter	<i>Lutra lutra</i>	x	x	x	✓	One adult identified in 2013 1.63km of the site.



Other notable species	Hedgehog	<i>Erinaceinae</i>	x	x	x	✓	Four identified. Nearest record being 1.14km from the site.
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4. Field Survey Results

4.1 Habitats

4.1.1 Scattered broadleaved trees

East of the site, adjacent to the A664 is a small patch of scattered broadleaved trees. These trees separate the site from the adjacent properties and consist of; goat willow (*Salix caprea*), common hawthorn (*Crataegus monogyna*) and silver birch (*Betula pendula*). The ground cover consists of dense ground elder (*Aegopodium podagraria*) with sparse common ivy (*Hedera helix*) and bramble (*Rubus Fruticosus*). On the north east corner of the site there is scattered broadleaved trees situated on amenity grassland. These trees continue off site into an area of dense scrub to form a woodland. Species on site, located on the amenity grassland and dense scrub consist of; hazel (*Corylus avellana*), cherry species (*Prunus sp*), ash (*Fraxinus excelsior*), goat willow and silver birch.

4.1.2 Dense Scrub

On the north east corner of the site, alongside the building, dense scrub is located. This dense scrub consists of bramble, common ivy and the aforementioned trees.

4.1.3 Amenity grassland

Surrounding the car park which is central of the site is amenity grassland. Patches of amenity grassland also surround the building. The amenity grassland is maintained and mowed. Species consist; of perennial rye (*Lolium perenne*), dandelion (*Taraxacum*), white clover (*Trifolium repens*) and cleavers (*Galium aparine*).

4.1.4 Ephemeral vegetation

Surrounding the building are hardstanding pathways, on these and on the car park west of the site, ephemeral vegetation is located. Ephemeral vegetation consists of; sow thistle (*Sonchus sp*), white clover, dandelion, dock (*Rumex sp*), and nettles (*Urtica dioica*).

4.1.5 Building (external)

There is one large building on site approximately 608m². The building is one storey, brick built with a flat felt lined roof. Metal shutters cover all windows and doors. Metal corrugated fascia is in place around the entire building. This is in good condition and flush to the building leaving no gaps or crevices. On the



west and south east sides of the building plastic weatherboard is located. The north side of the building was unable to be surveyed as it is fenced off and has dense scrub alongside. On the west side of the building, the weatherboard is not flush to the brick building (Photo 12). However, there are no gaps present into the building. On the south east side of the building there is a hole in the weatherboard. Upon further inspection this did not lead into the building (Photo 10). To conclude on the west wall there is a hole in the brickwork (photo 11), this hole did not lead anywhere.

4.1.6 Building (Internal)

The interior of the building is separated into 3 different bars and seating areas, with a large dance hall west of the building. Within the building there is also an office, several maintenance cupboards, two rest rooms and a cellar. The large dance hall has a suspended ceiling which is damaged in several areas. The suspended ceiling was inspected and there is no areas appropriate for roosting bats. The majority of the rooms had intact ceilings. However, some ceiling were damaged but did not lead to a roof space. The cellar was damp and unsuitable for bats.

4.2 Protected and Notable Species

4.2.1 Flora

The data search revealed no records of locally/nationally rare or protected floral species within 2km of the site. Therefore, flora will not be mentioned further in this report.

4.2.2 Invertebrates (including white-clawed crayfish)

The data search revealed no records of invertebrate within 2km of the site. The site holds some potential to support an average invertebrate assemblage through the range of floral species present on site. No potential to support protected species was recorded on site and therefore, invertebrates will be mentioned further in this report.

4.2.3 Fish

The data search revealed records of European eel withing 2km of the site boundary. No habitat that could support fish species was found on this site. Therefore, fish will not be mentioned further in this report.



4.2.4 Amphibians

The data search revealed records of two common toad species within 2km of the site boundary. Limited habitat that could support amphibian species was found on site. Therefore, amphibians will not be mentioned further in this report.

4.2.5 Reptiles

The data search revealed records of slow worm within 2km of the site boundary. No habitat that could support reptile species was found on this site. Therefore, reptiles will not be mentioned further in this report.

4.2.6 Birds

The data search revealed records of twelve bird species within 2km of the site boundary. One of the bird species recorded (kingfisher) within 2km of the site boundary was a schedule 1 species. The site holds the potential to support nesting birds through the presence of scattered broadleaved trees and the dense scrub onsite.

4.2.7 Bats

The data search revealed records of five bat species within 2km of the site boundary. Of these records there was twenty-seven bat roosts identified within 500, 1km & 2km of the site boundary. The site may offer limited foraging habitat through a range of flora species and the invertebrate population that the vegetation is likely to support. The building onsite has negligible bat roosting potential.

4.2.8 Badgers

The data search revealed no records of a badger sett within 2km of the site boundary. No direct or indirect signs of badgers were identified on site. Therefore, badgers will not be mentioned further in this report.

4.2.9 Otters

The data search revealed records of one adult otter within 2km of the site boundary. No habitat that could support otters was found on site. Therefore, otters will not be mentioned further in this report

4.2.10 Water Voles



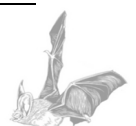
The data search revealed no records of water voles within 2km of the site boundary. No habitat that could support water voles was found on site. Therefore, water voles will not be mentioned further in this report.

4.2.11 Other Notable Species

The data search revealed records of hedgehogs within 2km of the site boundary. The site holds the potential to support foraging, hibernating and commuting hedgehogs through suitable on-site foraging and hibernating habitat within the dense scrub.

4.2.12 Invasive Species

The data search revealed no records of schedule 9 species within 2km. No invasive species were noted on site. Therefore, invasive species will not be mentioned further in this report.



5. Assessment

5.1 Designated Sites

5.1.1 Statutory designated sites

There are three statutory designated sites within 2km of the site. Boggart hole clough (522m south), Alkrington woods (1197m north east) and Blackley forest (1480m north west), all designated as local nature reserves. Due to habitat fragmentation caused by various roads including the A664, residential and commercial properties, plus taking into account the small scale of the development, there will unlikely be an impact on the statutorily designated nature conservation sites.

5.1.2 Non-statutory designated sites

There are seven non-statutory designated sites within 2km of the site. Bailey's Wood (359m south, SBI), Boggart hole clough (522m south, SBI), Boardman Brook (1.74km north, SBI), Alkrington woods & Rhodes ledges (1.197km north east, SBI), Blackley Forest (1.480km west, SBI) and Bowker vale reservoirs (2km west, SBI). Due to habitat fragmentation caused by various roads including the A664, residential and commercial properties, plus taking into account the small scale of the development, there will unlikely be an impact on the non-statutorily designated nature conservation sites.

5.2 Habitats

5.2.1 The most valuable habitats for biodiversity within the development site boundary are the scattered broad-leaved trees and dense scrub. The proposed works will impact the scattered trees and dense scrub by their potential removal.

5.2.2 The other habitats described in Chapter 4, Section 4.1 have lower biodiversity and provide less opportunity to support protected or notable species. The flora recorded in these habitats is considered to be locally common and widespread and they do not fall into any of the NERC S41 or Local BAP Priority Habitat descriptions.

5.3 Protected and Notable Species



- 5.1.1 Birds The scattered broadleaved trees and dense scrub on site are likely to support nesting birds during the nesting bird season (February - August). Ample foraging habitat is also present on site. The proposed development is likely to see the removal and impact of several scattered trees and scrub.
- 5.1.2 Bats The site itself has limited foraging potential for bats through the range of flora species and the invertebrate population that the vegetation is likely to support. During the construction stage of the proposed development the intense lighting used on site will likely affect foraging bat behaviour on site.
- 5.1.3 Other Notable Species. The proposed development has the potential to kill or injury hibernating hedgehogs in the dense scrub on site during the hibernating season (November – March).



6 Recommendations

6.1 Habitats

- 6.1.1 The, scattered broadleaved trees and dense scrub provide excellent nesting opportunities for breeding bird species. In the UK the key breeding period for birds is from 1st February until 31st August (depending on species and behaviour). If tree removal occurs within this period, a pre-construction site walkover is required prior to vegetation removal commencing. Outside of this period, if birds are found to be nesting during tree removal, then the removal must cease immediately, and a suitably competent ecologist contacted.
- 6.1.2 On completion of works, the number of felled trees removed must be replaced with native species of local provenance on a three-for one-basis.
- 6.1.3 Biodiversity Enhancement Plan: A Biodiversity Enhancement Plan should be designed pre-construction to be implemented post construction during the landscaping phase of the development. This would be performed alongside the Biometric 2.0 Calculation that is required by all developments to demonstrate a biodiversity net gain of at least 10% post development. The biodiversity enhancement plan will provide opportunities for local wildlife and aim to retain or enhance LBAP priority habitats, to ensure the development does not have a significant detrimental impact on local or national wildlife populations.
- 6.1.4 Inappropriate lighting in the vicinity of bat roosts can cause disturbance to bat populations and individuals and could be constituted as an offence under the Wildlife and Countryside Act 1981. As such, we have prepared guidance in line with the information provided by the Institute of Lighting Professionals (ILP, 2018) to aid in planning lighting schemes with the aim of limiting the impact that lighting may have on local bat populations.

It is important to avoid:

- Uniform levels of luminance across the site.
- Metal halide and florescent lighting.
- Upward tilting lighting that increases skyline luminance.

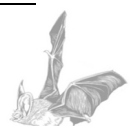
Instead the following should be installed:

- Dark buffer zones.



- Screening in the form of vegetation, fences and structures.
- Appropriately designated darkened areas.
- Luminaries absent of UV elements
- LED luminaries with a sharp cut-off, low intensity and good rendition.
- Peak luminaire wavelength at a minimum of 550nm.
- Downward directional luminaires with upward light ratios of 0%

6.1.5 If scrub is to be removed within the hedgehog hibernating season (November – March) a pre-construction scrub check is required by a qualified ecologist to check for hibernating hedgehogs, ensuring no harm to potential hibernating hedgehogs within.



7 References

Guidelines for surveys and report writing:

British Standards Institute (BSI), (2013) *BS 42020:2013, Biodiversity - Code of practice for planning and development*. London.

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Within this detailed guidance on surveys and mitigation information is available on the following protected species:

- Bats
- Natterjack toads
- Otters
- Reptiles
- Water voles
- White-clawed crayfish
- Wild birds
- Hazel dormice
- Great crested newts
- Badgers

Wildlife licences: when you need to apply - Detailed guidance (2014) Gov.uk. Available at: <https://www.gov.uk/guidance/wildlife-licences> (Accessed: 21 September 2016).

Within this detailed guidance on licensing information is available on licences for the following protected species:

- Bats
- Natterjack toads
- Otters
- Reptiles
- Water voles
- White-clawed crayfish
- Wild birds
- Hazel dormice
- Great crested newts
- Badgers

As well as:

- Non-native Bumblebee species
- Deer
- Freshwater fish
- Invertebrates
- Mink, coypu, muskrat and grey squirrel
- Plants



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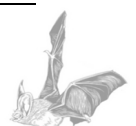
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Peay, S. (2002) *Guidance on Habitat for White-clawed Crayfish and its Restoration*. Kendal: English Nature

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<http://www.legislation.gov.uk/ukxi/1997/1160/contents/made>



(Accessed: 21 September 2016)

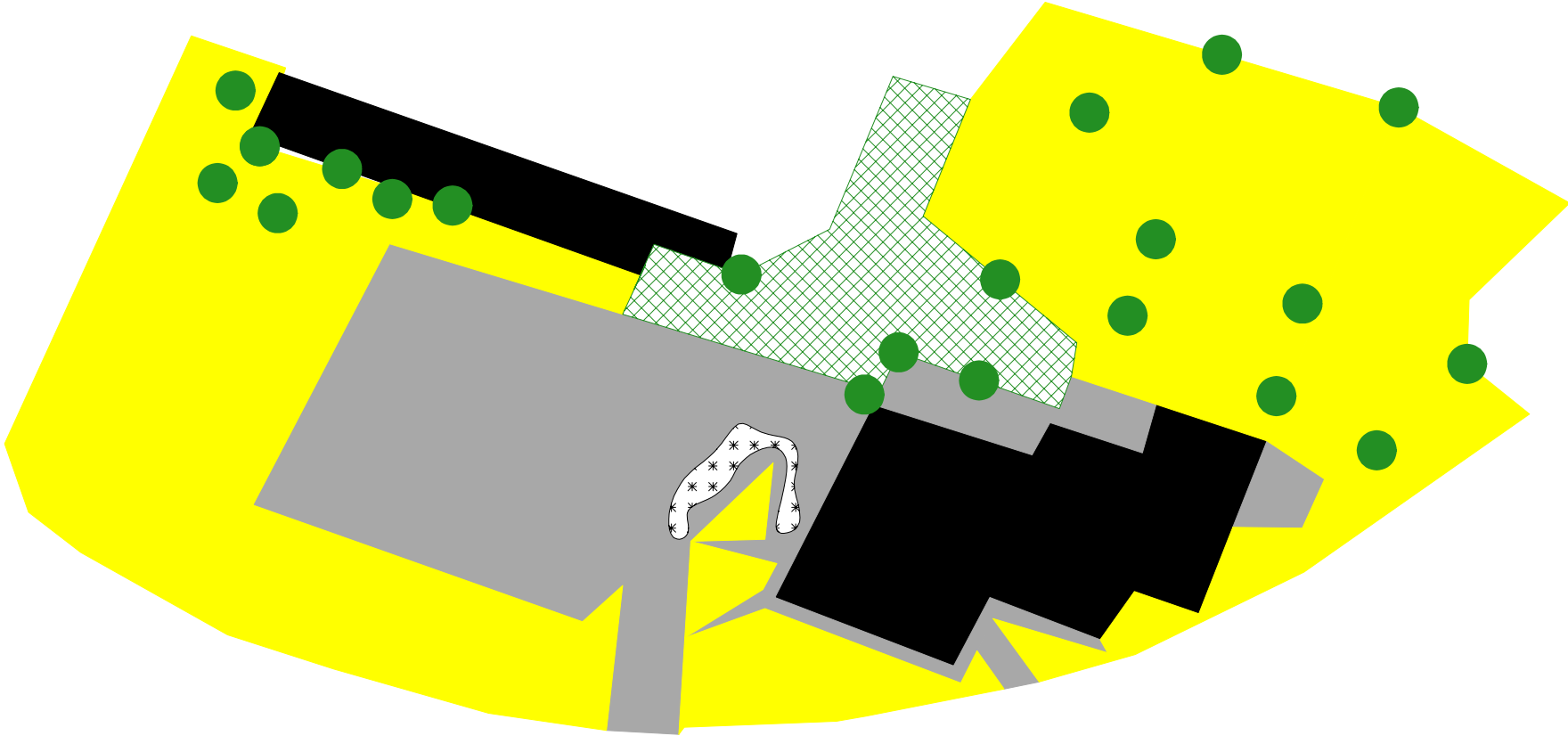
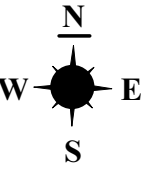


Appendices



Appendix 1: Phase 1 Habitat Map





Appendix 1: Phase 1 Habitat Map

TITLE: Address: The Former VASA Club,
238 White Moss Road,
Manchester,
M9 6NZ,

JCA Ref: 17065/FS

KEY

-  Dense/continuous scrub
-  Scattered broad-leaved trees
-  Amenity grassland
-  Buildings
-  Hard standing
-  Ephemeral/short perennial

Appendix 2: Proposed Development Plan



Appendix 3: Photographic Evidence



Photo 1: Dense scrub and scattered trees north east of site.



Photo 2: Scattered broadleaved trees north east of site.



Photo 3: Car park central of the site with amenity grassland surrounding.



Photo 4: Scattered trees north west of the site.



Photo 5: Building – southern side.



Photo 6: Building- western side.





Photo 7: Entrance to building - south east side



Photo 8: Building - east side



Photo 9: Building – north side. Unable to be surveyed due to fence and dense scrub.



Photo 10: Hole present in weatherboard. Does not lead anywhere.



Photo 11: Hole in brickwork on west wall, does not lead anywhere.



Photo 12: Weatherboard not flush on west side. Does not lead anywhere.





Photo 13: Large dance hall west side of building.



Photo 14: Suspended ceiling above large dance hall, west side of building.



Photo 15: Bar area west side of building.



Photo 16: Bar and pool area east side of building. Holes in roof, inspected and noted unsuitable for bats.



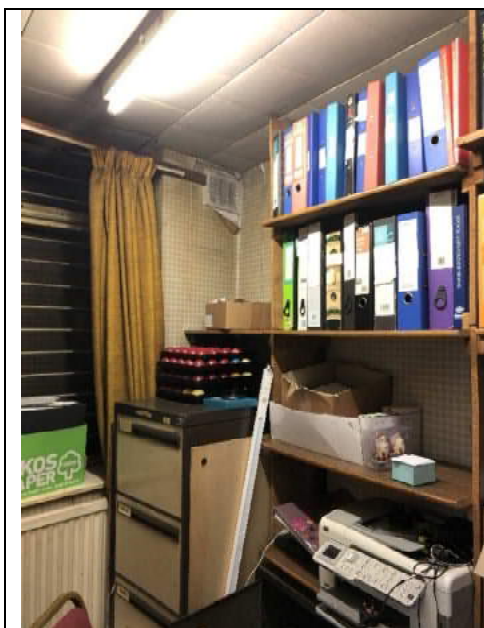


Photo 17: Office area, south east side of building.

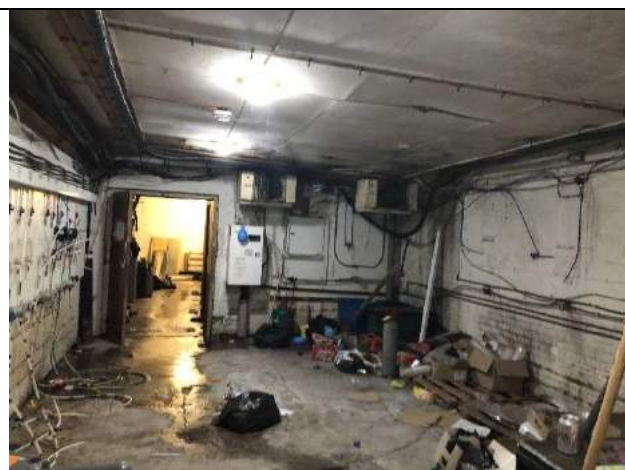


Photo 18: Cellar area north west side of building.



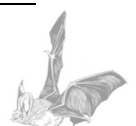
Photo 19: Roof of toilets, south side of building.



Bar and dining area south side of building.



Photo 21: Maintenance cupboard south west side of building. Hole in roof with various wires, unsuitable for bats.	
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Appendix 4: Species List

To be submitted to the appropriate Local Records Centre

Site Name: The Former VASA Club, 238 White Moss Road

Provided by: JCA LTD

Table 11: Complete list of species encountered during survey.

Common Name	Scientific Name	Number	Comment
ground elder	<i>Aegopodium podagraria</i>	N/A	N/A
silver bitch	<i>Betula pendula</i>	N/A	N/A
hazel	<i>Corylus avellana</i>	N/A	N/A
common hawthorn	<i>Crataegus monogyna</i>	N/A	N/A
ash	<i>Fraxinus excelsior</i>	N/A	N/A
cleavers	<i>Galium aparine</i>	N/A	N/A
common ivy	<i>Hedera helix</i>	N/A	N/A
perennial rye	<i>Lolium perenne</i>	N/A	N/A
cherry species	<i>Prunus sp</i>	N/A	N/A
bramble	<i>Rubus Fruticose</i>	N/A	N/A
dock	<i>Rumex</i>	N/A	N/A
goat willow	<i>Salix caprea</i>	N/A	N/A
sow thistle	<i>Sonchus</i>	N/A	N/A
dandelion	<i>Taraxacum</i>	N/A	N/A
white clover	<i>Trifolium repens</i>	N/A	N/A
nettles	<i>Urtica dioica</i>	N/A	N/A



Appendix 5: Bat Survey Calendar

Figure 1: Survey timings calendar (taken from BCT: Bat surveys for professional Ecologists, Good Practice Guidelines; 3rd Edition).

Survey type	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Preliminary ecological appraisal – fieldwork												
Preliminary roost assessment – structures ^a												
Emergence/re-entry survey for maternity or summer roosts ^b												
Emergence/re-entry ^c survey for transitional roosts ^b												
Emergence survey for mating roosts ^b												
Hibernation survey – structures ^d												
Preliminary ground level roost assessment – trees ^d												
Potential roost feature (PRF) inspection survey – trees												
Ground level bat activity survey – transects and automated/static												
Pre-, during and post-hibernation – automated/static bat activity survey												
Swarming survey												
Back-tracking survey												
Trapping survey ^e												
Radio tagging and tracking survey ^e												

= optimal period
 = sub-optimal period

= weather or location dependent (i.e. may not be suitable due to spring and autumn conditions in any one year or in more northerly latitudes). Note that October surveys are not acceptable in Scotland.

^a Not including trees



Appendix 6: Glossary

Activity surveys - are used to assess the level of bat activity at a site. This can be done either by using equipment such as an AnaBat device, or manually walking around a site with a heterodyne detector, documenting the number of bat passes and interceptions.

Dawn surveys - begin around 2 hours before and up to sunrise when bats are returning to their roosts from foraging, and swarming behaviour can be seen close to roost entrances.

Dusk surveys - begin around 30 minutes before sunset and up to 2 hours afterwards. These are done in order to see bats emerging from their roost sites at night.

Echolocation – is a system similar to sonar that allows bats to travel and forage even in total darkness. Bats make a call and then listen to the returning echoes in order to build up a map of their surrounding area. This allows bats to gauge the identity and distance of an object by how long the echo takes to return to them.

Habitat - the ecological or environmental area that is inhabited by a particular species of animal, plant or other type of organism.

Hibernation - is a state of inactivity and metabolic depression characterized by lower body temperature, slower breathing, and lower metabolic rate. Hibernating animals conserve energy, especially during winter when food is short, tapping energy reserves, i.e. body fat, at a slow rate.

Hibernacula - typically consist of underground sites, such as caves and cellars, which remain relatively cold and humid. Bats will hibernate to conserve energy over the winter months when falling temperatures cause a drop in the abundance of insects. These will typically be colonised around November to around March.

Insectivorous – is when an organism feeds exclusively on insects.

Nocturnal - a behaviour characterized by being active during the night and sleeping during the day.

Maternity roosts – colonised around late May early June and consist of mature females and their young. These roosts need to be warm and quiet, and are used up until around August, with females typically leaving first and then the young.

Mating roosts – mating begins around late October to November. Males of most species use special mating calls to attract females. These can include purrs, clicks and buzzing.

Roost – a site where bats live during the day, rear young and hibernate. These can be in man made structures, such as buildings, bridges, tunnels, cellars and mines, or natural features such as mature trees and caves.

Roosts in buildings – many types of buildings will be used by bats. The most likely sites are agricultural buildings (e.g. farmhouses and barns), buildings with exposed wooden beams (greater than 20cm thick), buildings with weather boarding and/or hanging tiles, and buildings close to woodland and/or water.

Roosts in trees – these are typically in mature trees with deep sheltered cracks, under loose sections of bark, or in woodpecker holes.

Species – a group of organisms in which all members can interbreed and produce viable offspring.

Summer roosts (non-breeding) - these are generally occupied by groups of males and immature females during the summer, and are usually only occupied for a short period before the group moves to another location.

Swarming – a behaviour exhibited by bats returning to their roost sites at dawn. Bats can be seen repeatedly flying to and from the roost entrance, making it much easier for consultants to identify where roosts are on a building or structure.



Temporary/Transitory roosts – These are used after hibernation (March – April) before mature females disperse to maternity roosts and male/immature females colonise summer (non-breeding) roosts. Similarly, temporary roosts form before hibernation (August -October).

Underground Roosts – these are typically used during the winter and can be mines, caves, tunnels or cellars.



Appendix 7: Protected Species Information

The following species are fully protected in UK law, under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019:

- All UK bat species
- Dormouse
- Great Crested Newt and Natterjack Toad
- Large Blue Butterfly
- Otter
- Pine Marten
- Polecat
- Scottish Wild Cat
- Smooth Snake and Sand Lizard
- Various aquatic and plant species

These species are afforded the highest protection in the UK. Under this protection it is an offence to; deliberately capture, injure or kill any wild animal of a European protected species; deliberately disturb wild animal of any such species; deliberately take or destroy the eggs of such an animal, or damage or destroy a breeding site or resting place of such an animal.

In addition to this it is an offence to be in possession of, or to control, transport, sell or exchange, or to offer for sale or exchange, a European Protected species.

The following species are protected under UK law, such as the Wildlife and Countryside Act 1981 (as amended):

- Badger
- Nesting birds
- Red Squirrel
- Reptiles (Adder, Common lizard, Grass snake, Slow worm)
- Water Vole
- White Clawed Crayfish
- Various bird species i.e. Barn Owl
- Various plant species

Therefore under this protection it is an offence to; kill, injure or take any of the above species.

Nesting birds are only protected during the breeding season whilst on their nest. In addition to the adults being protected, the eggs, young and nest itself whilst in use are protected.

The Wildlife and Countryside Act 1981 also contains measures to prevent the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of

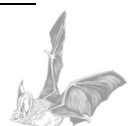


animals and planting of plants listed in Schedule 9 in England and Wales (e.g. Japanese Knotweed and Himalayan Balsam).

Badgers are protected under The Protection of Badgers Act 1992. Under this legislation it is an offence to; take, injure, kill, or cruelly ill-treat a badger; interfere with a badger sett; sell or possess a live badger; or mark or ring a badger.

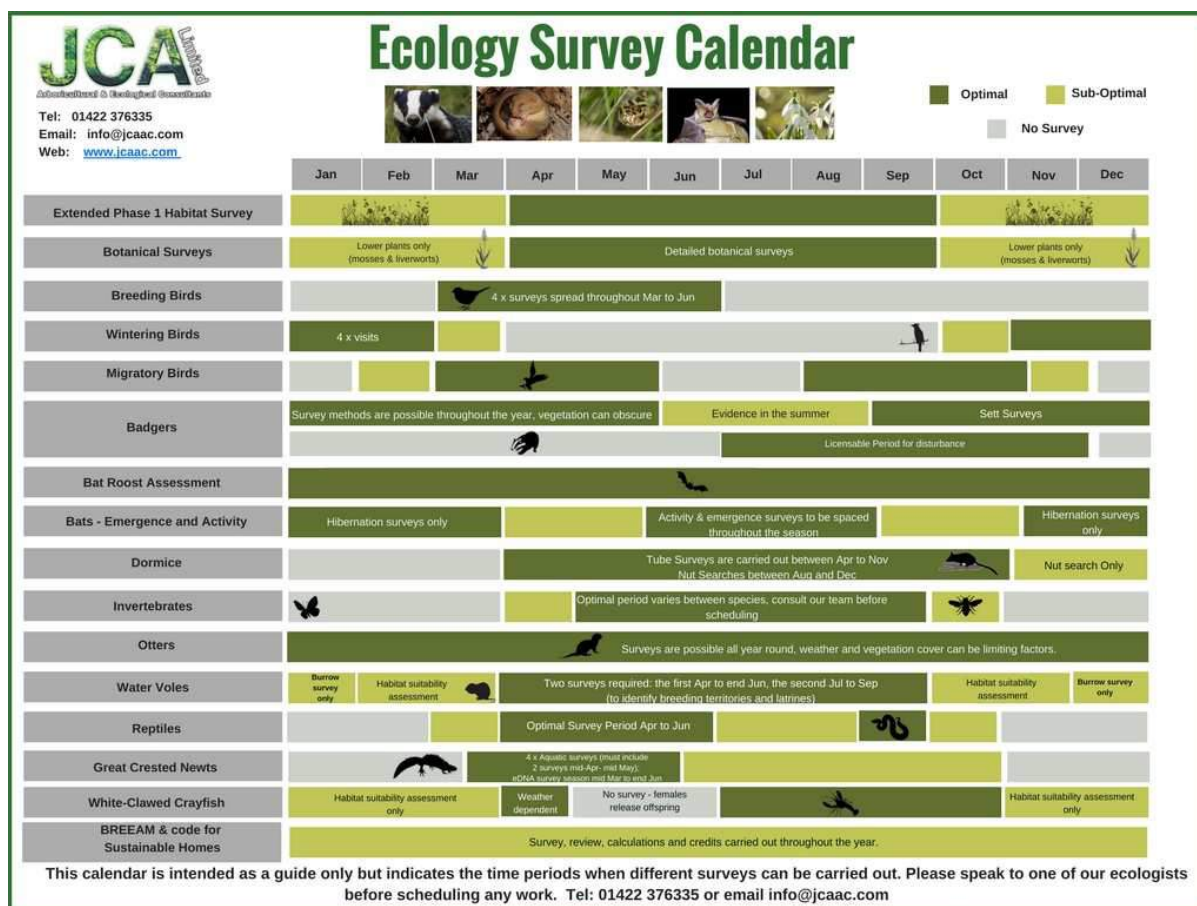
The following habitat types are protected under UK Law:

- Habitats that are used by protected species
- Habitats that fall within designated sites
- Hedgerows
- Individual trees/woods can be protected under Tree Preservation Orders



Appendix 8: Survey Calendar

Figure 2: Survey calendar for protected species and habitat surveys.



The [information/ data/ evidence/ advice/ opinion] which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed



.....
Francesca Sykes *Qualifying CIEEM member*

20/04/2021

Reviewed by



.....
Adam West

21/04/21

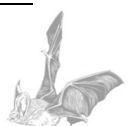
For and on behalf of **JCA Ltd**

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ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

ARBORICULTURAL SERVICES

Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control



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